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| 10/717,095      | 11/19/2003  | Icko E. T. Iben      | IBM1P037/SJ09-2003-0033US | 7295             |

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EXAMINER

EVANS, JEFFERSON A

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2627

DATE MAILED: 05/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/717,095

Applicant(s)

IBEN, ICKO E. T.

Examiner

Jefferson A. Evans

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22 is/are allowed.
- 6) ☒ Claim(s) 1-6, 8, 12-16 and 18 is/are rejected.
- 7) ☐ Claim(s) 7, 9-11, 17 and 19-21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

Claims 1 to 22 are pending.

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the diode including crossed diodes with multiple diodes aligned in series in each direction and a different number of diodes aligned in series in each direction must be shown or the feature(s) canceled from the claim(s). The language of claim 5 establishes that in each direction there must be at least 2 diodes and then in claim six it is established that there are a different number of diodes in each direction which means that in at least one direction there are at least 3 diodes but this is not shown in any figure. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New

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Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Kato et al (U.S. 5,179,492). A reusable device for protecting an electronic component from electrostatic discharge (ESD), comprising: a substrate 3 having a coupling region 7a-7c being adapted for detachable coupling to at least one of a cable and another device 4, at least one protective diode 9 coupled to the substrate; and contact leads coupled to the coupling region of the substrate, the contact leads (the schematic of figure 1 indicates electrical leads are present between the diode and the coupling region) being in electrical communication with the at least one diode.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 to 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al. Kato does not disclose the substrate as being flexible.

Official Notice is given that it was notoriously old and well known in the art at the time the invention was made to mount electrical components and electrical leads on a flexible printed circuit which would include a flexible substrate.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the device of Kato include a flexible printed circuit including a flexible substrate. The motivation would have been: such a flexible printed circuit allowed for a printed circuit to more readily be fit within a certain shape housing and better allow the printed circuit to extend from point A to point B, and to be able to adapt to any intervening obstacles.

6. Claims 4, 5, and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al in view of Gill (U.S. 5,903,415) and/or Murdock et al (U.S. 5,748,412). This rejection is based on either the rejection of paragraph 3 or the rejection of paragraph 5. Kato does not disclose his protective diode as including crossed diodes with multiple diodes aligned in each direction.

Gill (figure 9) and Murdock (figure 3c) each discloses a protective diode taking the form of crossed diodes with multiple diodes aligned in each direction.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the protective diode of Kato include crossed diodes with

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multiple diodes aligned in each direction. The motivation would have been: as evidenced by Gill and Murdock, such an embodiment had been established in the art as being effective and beneficial for protecting electrical circuits/elements.

7. Claims 6 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al in view of Gill. This rejection is based on either the rejection of paragraph 3 or the rejection of paragraph 5. Kato does not disclose his protective diode as including crossed diodes with a different number of diodes aligned in each direction.

Gill (figure 11) discloses a protective diode taking the form of crossed diodes with a different number of diodes aligned in each direction.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the protective diode of Kato include crossed diodes with multiple diodes aligned in each direction. The motivation would have been: as evidenced by Gill, such an embodiment had been established in the art as being effective and beneficial for protecting electrical circuits/elements.

8. Claims 8 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al in view of Mayer (U.S. 6,753,204). Kato discloses an IC chip 5 but does not disclose his protective diode 9 as being incorporated into the IC chip.

Mayer discloses that a diode may be incorporated into an IC Chip.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the protective diode of Kato be incorporated into his IC chip. The motivation would have been: having elements incorporated into a single chip

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was known to protect elements by having them within a single package, reduced the amount of space occupied by elements, and simplify assembly.

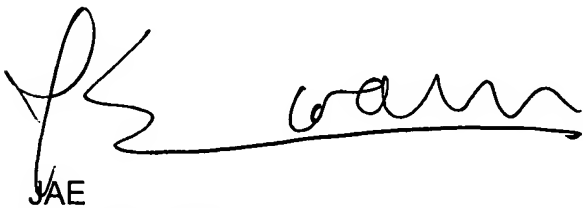
***Allowable Subject Matter***

9. Claim 22 is allowed. Claims 7, 9-11, 17, and 19-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jefferson A. Evans whose telephone number is 571-272-7574. The examiner can normally be reached on Monday to Friday, 9:00am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JAE  
April 29, 2006

Jefferson A. Evans  
Primary Examiner  
Art Unit 2627

**JEFFERSON EVANS  
PRIMARY EXAMINER**